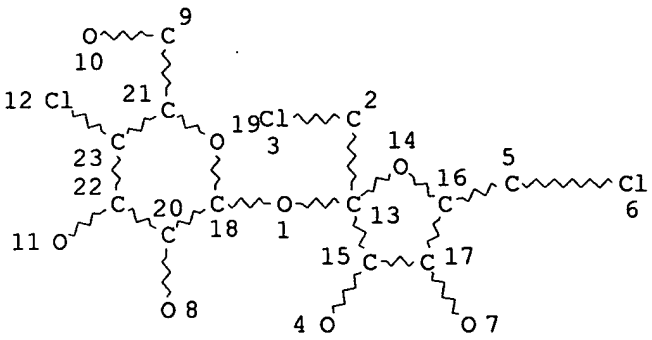
```
=> d que
L2                STR
```



```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  23

STEREO ATTRIBUTES: NONE
L3            15 SEA FILE=REGISTRY FAM FUL L2
L4           394 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3
L6         99158 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CRYSTALLIZATION+NT/CT
L7         16614 SEA FILE=HCAPLUS ABB=ON  PLU=ON  RECRYSTALLIZATION+NT/CT
L8          5019 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SOLVENT EXTRACTION/CT
L9        214117 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CHROMATOGRAPHY+OLD,NT/CT
L10            4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND (L6 OR L7)
L13           28 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND (L8 OR L9 OR SOLVENT(2A
                 )EXTRACT? OR LIQUID LIQUID(3A)EXTRACT? OR CHROMATOGRAPH?)
L14            5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 AND (L3(L)PUR/RL OR
                 PURI?)
L15            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 OR L14


=> d ibib abs hitind hitstr l15 1-9

L15  ANSWER 1 OF 9  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2003:261640  HCAPLUS
DOCUMENT NUMBER:          138:276294
TITLE:                    Edible compositions containing carbohydrate for dosage
                          forms
INVENTOR(S):              Bunick, Frank J.; Labella, Gus B.; Sowden, Harry S.
PATENT ASSIGNEE(S):       McNeil-PPC, Inc., USA
SOURCE:                   PCT Int. Appl., 46 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   15
PATENT INFORMATION:

     PATENT NO.       KIND  DATE          APPLICATION NO.  DATE
```

WO 2003026616	A1	20030403	WO 2002-US31164	20020928
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2003068367	A1	20030410	US 2001-966939	20010928
US 2003072799	A1	20030417	US 2001-966509	20010928
US 2003086973	A1	20030508	US 2001-966497	20010928
WO 2003028990	A1	20030410	WO 2002-US30614	20020926
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.:	US 2001-966450	A	20010928
	US 2001-966497	A	20010928
	US 2001-966509	A	20010928
	US 2001-966939	A	20010928
	US 2001-967414	A	20010928

AB An edible product comprises at least about 50% by wt. of a crystallizable carbohydrate based upon the wt. of the product, wherein at least about 90% by wt. of the crystallizable carbohydrate comprises crystals having an av. particle size of about .ltoreq. 100 .mu.. The product has a moisture content of not more than about 5% by wt. loss on drying, and a cross-sectional area in the range of about 1-900 sq. mm, of which at least about 30% is non-striated. A dosage form comprises at least one active ingredient and the edible product, or at least one active ingredient, a shell comprising the edible product, and a substrate such as a core. The shell or core or both may contain an active ingredient, such as a drug. For example, acetaminophen tablets were prepd. by injection molding of a compn. contg. fondant (90% solids) 17.77%, Bob syrup (87% solids) 55.34%, acetaminophen 22.64%, water 3.69%, invert sugar 0.11%, sucralose 0.07%, and flavor 0.38%.

IC ICM A61K009-00
ICS A61K009-20; A61K009-28

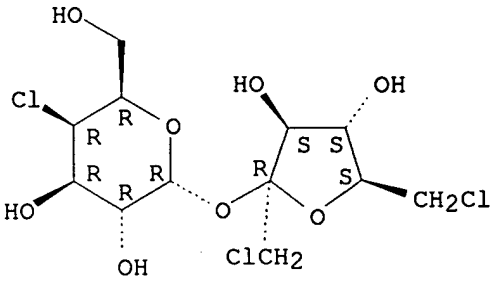
CC 63-6 (Pharmaceuticals)

IT **Crystallization**
(prepn. of tablets contg. crystallizable carbohydrate by injection molding)

IT 103-90-2, Acetaminophen **56038-13-2**, Sucralose
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of tablets contg. crystallizable carbohydrate by injection molding)

IT **56038-13-2**, Sucralose
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of tablets contg. crystallizable carbohydrate by injection molding)
RN 56038-13-2 HCAPLUS
CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:112526 HCAPLUS
DOCUMENT NUMBER: 138:220533
TITLE: Determination of acesulfame and sucralose in oral electrolyte maintenance solution by liquid **chromatography**
AUTHOR(S): Johns, Paul; Dowlati, Lobat
CORPORATE SOURCE: Ross Products Division, Abbott Laboratories, Columbus, OH, 43219, USA
SOURCE: Journal of AOAC International (2003), 86(1), 79-85
CODEN: JAINEE; ISSN: 1060-3271
PUBLISHER: AOAC International
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A method was developed for the direct, simultaneous detn. of acesulfame and sucralose in oral electrolyte maintenance soln. (OEMS). Analyte sepn. and quantitation were achieved by gradient reversed-phase liq. **chromatog**. (LC) and UV absorbance at 192 nm, resp. Detection at a second wavelength, 214 nm, was used to check sucralose peak **purity** ; 20 .mu.L OEMS was injected without prepn. or diln. System linearity was demonstrated as 192 nm peak area vs. analyte concn. at 80-120% OEMS sweetener fortification ($r > 0.999$, and all residuals <0.5%, for both acesulfame and sucralose). Spike recoveries for OEMS samples prepd. at 3 spiking levels (80, 100, and 120% sweetener fortification) ranged from 100.3 to 102.0% for acesulfame, and from 97.9 to 102.3% for sucralose. In a second assessment of method accuracy, the same spiked OEMS samples were tested by 2 alternative methods: acesulfame (LC/UV at 230 nm) and sucralose (anion exchange-pulsed amperometric detection). Results for the alternative acesulfame method were within 1.2%, and for the alternative sucralose method within 6.0%, of the corresponding results obtained by the 192 nm method. Repeatability and intermediate precision RSD values were <1% for acesulfame and <3% for sucralose. The limits of quantitation were

1.6 and 32 mg/L for acesulfame potassium and sucralose, resp. Despite the weak UV absorptivity of sucralose and the consequent small size of its LC peak, no evidence was found for sucralose interference in any of the com. OEMS flavors.

CC 17-1 (Food and Feed Chemistry)

ST acesulfame sucralose liq **chromatog** food analysis

IT Food analysis
Reversed phase HPLC
Simulation and Modeling, biological
(detn. of acesulfame and sucralose in oral electrolyte maintenance soln. by liq. **chromatog**.)

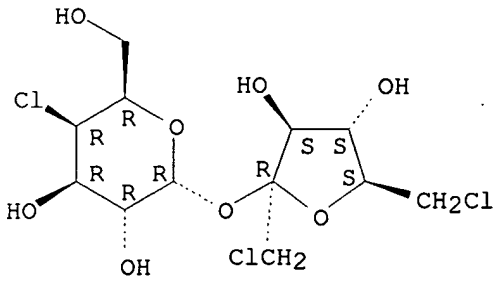
IT 33665-90-6, Acesulfame **56038-13-2**, Sucralose
RL: ANT (Analyte); ANST (Analytical study)
(detn. of acesulfame and sucralose in oral electrolyte maintenance soln. by liq. **chromatog**.)

IT **56038-13-2**, Sucralose
RL: ANT (Analyte); ANST (Analytical study)
(detn. of acesulfame and sucralose in oral electrolyte maintenance soln. by liq. **chromatog**.)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:854830 HCAPLUS

DOCUMENT NUMBER: 138:38243

TITLE: Determination of sucralose in foods by HPLC using pre-column derivatization

AUTHOR(S): Nojiri, Shuko; Nakazato, Mitsuo; Kasuya, Yoko; Takano, Ichiro; Oishi, Mitsuo; Yasuda, Kazuo; Suzuki, Sukeji

CORPORATE SOURCE: Tama Branch Lab., Tokyo Metrop. Res. Lab. Public Health, Tachikawa, 190-0023, Japan

SOURCE: Shokuhin Eiseigaku Zasshi (2002), 43(5), 289-294
CODEN: SKEZAP; ISSN: 0015-6426

PUBLISHER: Nippon Shokuhin Eisei Gakkai

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB The development of a sensitive pre-column derivatization high-performance liq. **chromatog**. (HPLC) method for detn. of sucralose is reported. Sucralose is converted into a strongly UV (UV)-absorbing

deriv., possessing strong absorption at 260 nm, by treatment with p-nitrobenzoyl chloride (PNBCl). Homogenized samples were dialyzed and washed with a Bond Elut ENV cartridge, then the eluate was evapd. to dryness and the residue was derivatized. Subsequently, the sucralose deriv. was **purified** with hexane-Et acetate (9:1) in a silica cartridge, and then the sucralose deriv. was eluted with acetone. HPLC was performed on a Ph column, using acetonitrile-water (73:27) as a mobile phase with UV detection (260 nm). The calibration curve was linear in the range of 1 .mu.g/mL to 50 .mu.g/mL of sucralose. The recoveries of sucralose from eight kinds of foods spiked at the levels of 0.20 and 0.05 g/kg of sucralose were more than 76.2% with SD values in the range from 0.90% to 4.31%. The quant. limit of the developed method was 0.005 g/kg for sucralose in samples.

CC 17-1 (Food and Feed Chemistry)

ST sucralose detn nitrobenzoylation precolumn derivatization HPLC food; liq **chromatog** sucralose detn food nitrobenzoyl chloride derivatization

IT Beverages
Food additives
Food analysis
HPLC
Sweetening agents
(detn. of sucralose in foods by HPLC using pre-column derivatization)

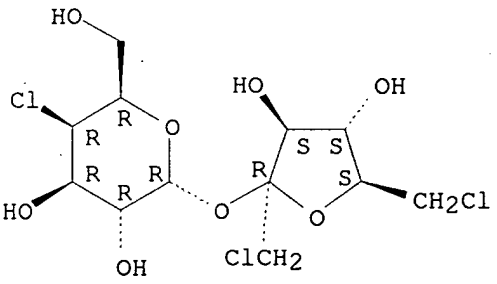
IT **56038-13-2**, Sucralose
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent)
(detn. of sucralose in foods by HPLC using pre-column derivatization)

IT **56038-13-2**, Sucralose
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent)
(detn. of sucralose in foods by HPLC using pre-column derivatization)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:391728 HCAPLUS
DOCUMENT NUMBER: 136:369947
TITLE: Improved sucralose composition and process for its preparation
INVENTOR(S): El Kabbani, Fiesal; Catani, Steven J.; Heiss,

Christian; Navia, Juan; Brohmi, Amal
PATENT ASSIGNEE(S): McNeil-PPC, Inc., USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002040495	A2	20020523	WO 2001-US43491	20011116
WO 2002040495	A3	20030501		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

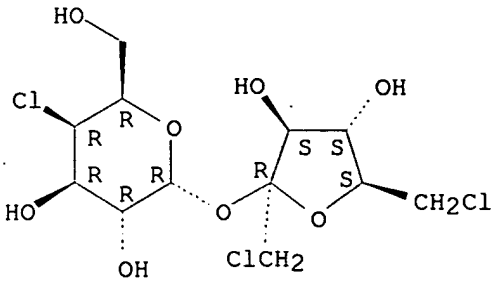
AU 2002026918	A5	20020527	AU 2002-26918	20011116
US 2002120134	A1	20020829	US 2001-991123	20011116

PRIORITY APPLN. INFO.: US 2000-249782P P 20001117
WO 2001-US43491 W 20011116

AB A process for the crystn. of sucralose from an aq. soln. comprising controlling the pH of said aq. soln. so as to maintain the pH in the range of from about 5.5 to about 8.5 during the formation of sucralose crystals.

IC ICM C07H005-00
CC 33-4 (Carbohydrates)
Section cross-reference(s): 75
IT **Crystallization**
(improved sucralose compn. and crystn. process for its prepn.)
IT **56038-13-2P**, Sucralose
RL: IMF (Industrial manufacture); PUR (Purification or recovery); PREP (Preparation)
(improved sucralose compn. and crystn. process for its prepn.)
IT **56038-13-2P**, Sucralose
RL: IMF (Industrial manufacture); PUR (Purification or recovery); PREP (Preparation)
(improved sucralose compn. and crystn. process for its prepn.)
RN 56038-13-2 HCAPLUS
CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:143205 HCAPLUS
DOCUMENT NUMBER: 136:189384
TITLE: Oral delivery of pharmaceuticals via encapsulation
INVENTOR(S): Battey, Alyce S.; Battey, Jacob
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002022057	A1	20020221	US 2001-931793	20010817
WO 2003009834	A1	20030206	WO 2001-US25791	20010817

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

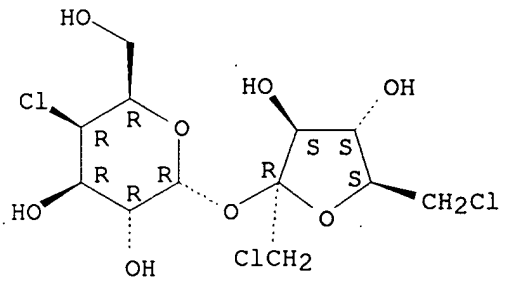
PRIORITY APPLN. INFO.: US 2000-225877P P 20000817

AB A dry particulate drug delivery system for dissoln. of pharmaceuticals in the mouth is prepd. by encapsulation of a therapeutically effective amt. of a drug. Encapsulation reduces the perceived off flavors of drugs, allowing the active components to dissolve pleasantly in the mouth. This allows more rapid absorption of the active compds. through the oral cavity compared to traditional tablets, which require breakdown and absorption in the gastrointestinal tract. The delivery system can be incorporated into a variety of applications, such as breath mint tablets or chewing gum. Benefits of this invention include portability and the ability to take pharmaceuticals without water and without the off taste of chewable tablets, thereby leading to increased patient compliance. For example, diphenhydramine, an antihistamine and sedative, was encapsulated via spray drying. Diphenhydramine hydrochloride (100 g) was combined with 500 g of water and 200 g of an enzymically converted starch deriv. The mixt. was heated to 60.degree. until starch dissoln. is complete and then lowered to 40.degree.. Peppermint oil (75 g) was added and emulsified at high speed for approx. 3 min. The emulsion was then spray dried into a powder using

std. techniques. The resulting powder was combined with tableting sugar (5%:95% wt./wt.) and compressed into tablets with a lubricating agent, such as magnesium stearate. The resulting 750 mg tablet contains 10 mg of diphenhydramine.

IC ICM A61K009-14
ICS A61K009-16
NCL 424490000
CC 63-6 (Pharmaceuticals)
IT **Crystallization**
(cocrystn.; drug encapsulation for dissoln. in and absorption through oral cavity)
IT **Crystallization**
(continuous; drug encapsulation for dissoln. in and absorption through oral cavity)
IT 50-70-4, Sorbitol, biological studies 50-99-7, Dextrose, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose 69-65-8, Mannitol 69-79-4, Maltose 81-07-2, Saccharin 87-99-0, Xylitol 100-88-9, Cyclamate 128-44-9, Saccharin sodium 3844-45-9, FD&C Blue 1 9050-36-6, Maltodextrin 22839-47-0, Aspartame 55589-62-3, Acesulfame potassium **56038-13-2**, Sucralose 165450-17-9, Neotame
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug encapsulation for dissoln. in and absorption through oral cavity)
IT **56038-13-2**, Sucralose
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug encapsulation for dissoln. in and absorption through oral cavity)
RN 56038-13-2 HCAPLUS
CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:190873 HCAPLUS
DOCUMENT NUMBER: 132:221732
TITLE: Cocrystallization of sugar and n-[n-(3,3-dimethylbutyl)-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester
INVENTOR(S): Fotos, Jim; Bishay, Ihab E.; Prakash, Indra; Wachholder, Kurt; Desai, Nitin
PATENT ASSIGNEE(S): Nutrasweet Co., USA
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000015050	A1	20000323	WO 1999-US21476	19990916
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6214402	B1	20010410	US 1998-154568	19980917
CA 2344444	AA	20000323	CA 1999-2344444	19990916
AU 9961505	A1	20000403	AU 1999-61505	19990916
AU 754433	B2	20021114		
EP 1139794	A1	20011010	EP 1999-948295	19990916
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002524098	T2	20020806	JP 2000-569649	19990916

PRIORITY APPLN. INFO.: US 1998-154568 A 19980917
WO 1999-US21476 W 19990916

AB Cocrystn. of N-[N-(3,3-dimethylbutyl)-1-.alpha.-aspartyl]-L-phenylalanine 1-Me ester (neotame) with sugar (sucrose) in various ratios is achieved. Thus, a sucrose soln. (195 g/100 mL) is heated and seeded with 0.225 g neotame and 5 g sucrose to afford a product that was sugar cocrystd. with neotame. The sugar cocrystd. sweetener is very sol. in water and has no dusting problems.

IC ICM A23L001-236
ICS C07K005-06; C13F003-00

CC 17-6 (Food and Feed Chemistry)
Section cross-reference(s): 34

IT **Crystallization**
(cocrystn.; cocrystn. of sugar and neotame)

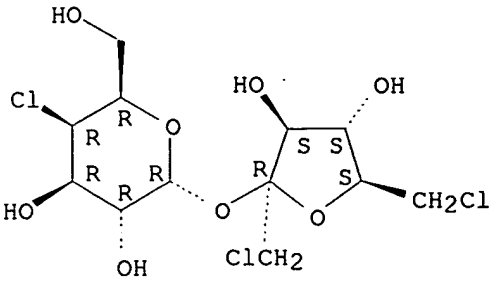
IT 50-99-7, Dextrose, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 81-07-2, Saccharin 100-88-9, Cyclamate 8013-17-0, Invert sugar 22839-47-0, Aspartame 55589-62-3, Acesulfame potassium **56038-13-2**, Sucralose 80863-62-3, Alitame 165450-17-9, Neotame
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(cocrystn. of sugar and neotame)

IT **56038-13-2**, Sucralose
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(cocrystn. of sugar and neotame)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:568837 HCAPLUS
DOCUMENT NUMBER: 129:189606
TITLE: **Chromatographic purification** of chlorinated sucrose
INVENTOR(S): Catani, Stephen J.; Leinhos, Duane; O'Connor, Thomas
PATENT ASSIGNEE(S): McNeil-PPC Inc., USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

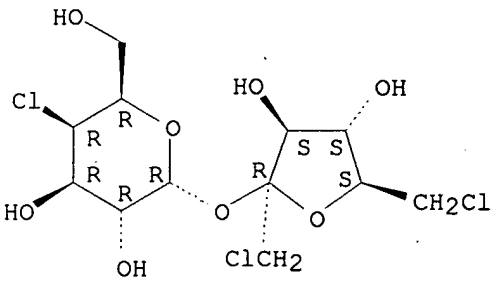
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9835974	A1	19980820	WO 1998-US2927	19980211
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9861675	A1	19980908	AU 1998-61675	19980211
US 5977349	A	19991102	US 1998-22071	19980211
EP 970096	A1	20000112	EP 1998-906453	19980211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
NZ 337573	A	20000623	NZ 1998-337573	19980211
JP 2001511812	T2	20010814	JP 1998-535981	19980211
NO 9903920	A	19991011	NO 1999-3920	19990813
PRIORITY APPLN. INFO.:			US 1997-46980P P	19970213
			WO 1998-US2927 W	19980211

OTHER SOURCE(S): MARPAT 129:189606
AB A process for sepg., in the liq. phase, a reaction mixt. which comprises a first chlorinated sucrose and at least one addnl. component selected from the group consisting of at least one other chlorinated sucrose different from said first chlorinated sucrose, salt and solvent, by injecting said reaction mixt. onto a fixed bed of solid adsorbent and treating with a desorbent such that: (a) the first chlorinated sucrose passes through the adsorbent into a first recoverable product stream rich in said first chlorinated sucrose at a rate, which is different than the rate at which,

(b) at least one of said addnl. components passes through the adsorbent into at least a second recoverable stream rich in said addnl. component.

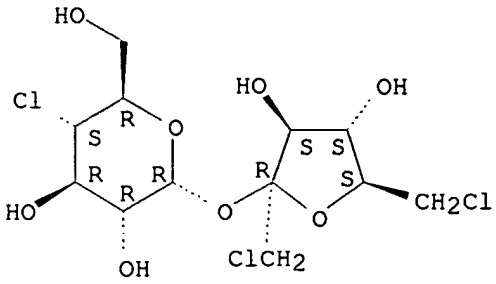
IC ICM C07H005-02
CC 33-4 (Carbohydrates)
Section cross-reference(s): 22
ST disaccharide chlorinated **chromatog purifn** adsorbent; chlorinated sucrose **chromatog purifn** adsorbent
IT Adsorbents
Chromatography
(**chromatog. purifn.** of chlorinated sucrose through solid adsorbent)
IT Disaccharides
RL: PUR (Purification or recovery); PREP (Preparation)
(**chromatog. purifn.** of chlorinated sucrose through solid adsorbent)
IT 40631-75-2 40984-16-5 **56038-13-2** 57783-44-5 59343-74-7
61854-83-9 64644-65-1 **69414-04-6** 211931-60-1
RL: PRP (Properties)
(**chromatog. purifn.** of chlorinated sucrose through solid adsorbent)
IT 55832-24-1P
RL: PUR (Purification or recovery); PREP (Preparation)
(**chromatog. purifn.** of chlorinated sucrose through solid adsorbent)
IT **56038-13-2 69414-04-6**
RL: PRP (Properties)
(**chromatog. purifn.** of chlorinated sucrose through solid adsorbent)
RN 56038-13-2 HCAPLUS
CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 69414-04-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



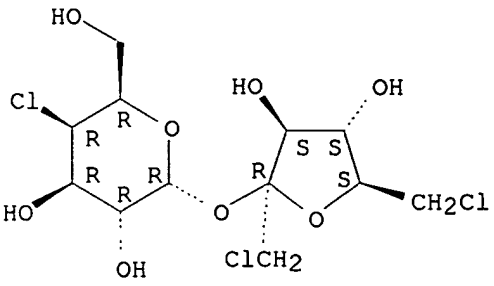
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:104407 HCAPLUS
DOCUMENT NUMBER: 116:104407
TITLE: Biological method for protection of 6-position of sucrose and its use in synthesis of disaccharide high-intensity sweetener
AUTHOR(S): Jones, Joan D.; Hacking, Andrew J.; Cheetham, Peter S. J.
CORPORATE SOURCE: Tate and Lyle Res. and Technol., Reading, RG6 2BX, UK
SOURCE: Biotechnology and Bioengineering (1992), 39(2), 203-10
CODEN: BIBIAU; ISSN: 0006-3592
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A general method for protecting the 6 primary hydroxyl position of sucrose is described. It involves the prodn. of glucose-6-acetate by fermn. of glucose using a strain of Bacillus megaterium followed by conversion to sucrose-6-acetate as a kinetic product using a specifically selected fructosyl transferase produced by a newly isolated strain of B. subtilis. The sucrose-6-acetate was more lipophilic than expected, and this property aided its **purifn.** by **chromatog.** Pure sucrose-6-acetate may then be chlorinated and subsequently deacetylated to give the high-intensity sweetener 4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose (sucralose) in high yields. This process involves fewer steps than are required for chem. synthesis using trityl chloride and acetic anhydride. Related intensely sweet mol. which were synthesized by similar methods included 4,1',6'-trichloro, 4,1',6'-trideoxy L-arabinosucrose, and 4,4',6'-trichloro-4,6,1',6'-tetradeoxygalactosucrose. They were obtained from xylose and 6-deoxyglucose, resp., via the intermediates xylsucrose and 6-deoxysucrose, formed by the reaction of the fructosyl transferase on the monosaccharide acceptors.

CC 16-2 (Fermentation and Bioindustrial Chemistry)
IT **56038-13-2P**, Sucralose 90539-07-4P 139079-23-5P
RL: PREP (Preparation)
(prepn. of, enzymic, protection of 6-position of sucrose in)
IT **56038-13-2P**, Sucralose
RL: PREP (Preparation)
(prepn. of, enzymic, protection of 6-position of sucrose in)
RN 56038-13-2 HCAPLUS
CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1979:104227 HCAPLUS
DOCUMENT NUMBER: 90:104227
TITLE: Semipreparative high-pressure liquid **chromatography** of synthetic carbohydrates
AUTHOR(S): Wingard, Robert E., Jr.; Ng, Steve; Dale, James A.; Wang, Patricia C.
CORPORATE SOURCE: Chem. Synth. Lab., Dynapol, Palo Alto, CA, USA
SOURCE: Journal of Liquid Chromatography (1978), 1(6), 775-82
CODEN: JLCHD8; ISSN: 0148-3919
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A rapid and effective method utilizing a 30 cm .times. 7.8 mm i.d. column packed with Waters Assocs. carbohydrate anal. packing in conjunction with isocratic water-acetonitrile elution and refractive index detection was developed for the **purifn**. of hundred-mg quantities of water-sol. synthetic carbohydrates. The generality of this method is illustrated by its application to 13 sucrose derivs. and 1 deriv. each of D-fructose and .alpha.,.alpha.-trehalose.

CC 33-1 (Carbohydrates)
Section cross-reference(s): 80

ST **chromatog purifn** synthetic carbohydrate; sucrose **chromatog purifn**; fructose **chromatog purifn**; trehalose **chromatog purifn**

IT Carbohydrates, preparation
RL: PREP (Preparation)
(semipreparative high-pressure liq. **chromatog**. of)

IT **Chromatography, column and liquid**
(high-pressure, semipreparative, of synthetic carbohydrates)

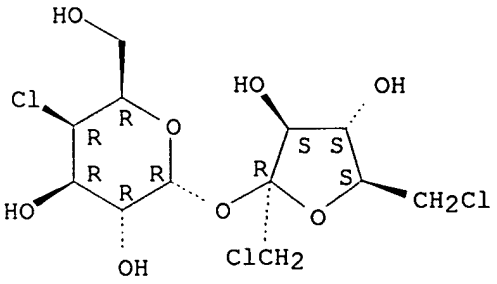
IT 35674-01-2P 38992-94-8P 40631-75-2P 40984-16-5P **56038-13-2P** 59001-35-3P 59001-37-5P 59001-40-0P 59183-59-4P 61854-83-9P **69414-04-6P** 69414-05-7P 69414-06-8P 69414-07-9P 69414-08-0P
RL: **PUR (Purification or recovery)**; PREP (Preparation)
(**purifn**. of, by semipreparative high-pressure liq. **chromatog**.)

IT **56038-13-2P 69414-04-6P**
RL: **PUR (Purification or recovery)**; PREP (Preparation)
(**purifn**. of, by semipreparative high-pressure liq. **chromatog**.)

RN 56038-13-2 HCAPLUS
CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-

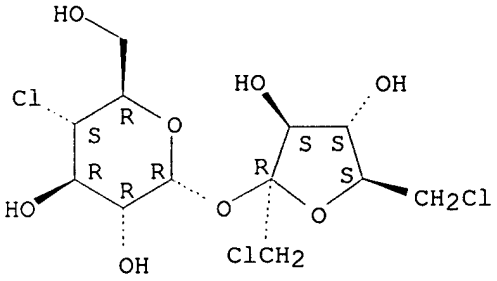
fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

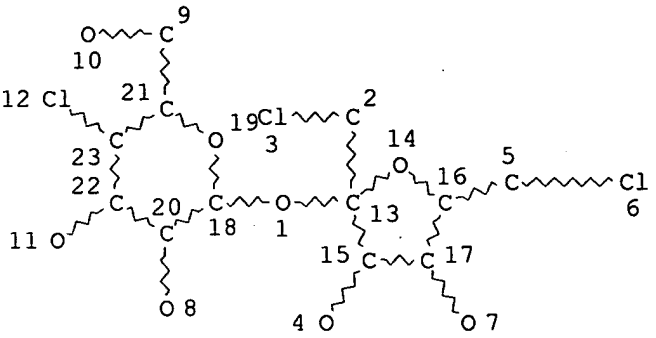


RN 69414-04-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



```
=> d que
L2              STR
```



```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  23

STEREO ATTRIBUTES: NONE
L3            15 SEA FILE=REGISTRY FAM FUL L2
L27            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3(L)PUR/RL


=> d ibib abs hitstr 1-3

L27  ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:391728  HCAPLUS
DOCUMENT NUMBER:          136:369947
TITLE:                    Improved sucralose composition and process for its
                          preparation
INVENTOR(S):              El Kabbani, Fiesal; Catani, Steven J.; Heiss,
                          Christian; Navia, Juan; Brohmi, Amal
PATENT ASSIGNEE(S):       McNeil-PPC, Inc., USA
SOURCE:                   PCT Int. Appl., 25 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
     WO 2002040495      A2   20020523      WO 2001-US43491  20011116
     WO 2002040495      A3   20030501
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
```

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002026918	A5	20020527	AU 2002-26918	20011116
US 2002120134	A1	20020829	US 2001-991123	20011116

PRIORITY APPLN. INFO.: US 2000-249782P P 20001117
WO 2001-US43491 W 20011116

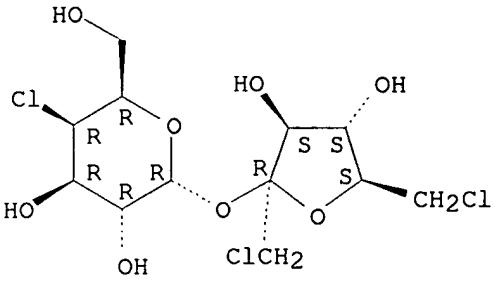
AB A process for the crystn. of sucralose from an aq. soln. comprising controlling the pH of said aq. soln. so as to maintain the pH in the range of from about 5.5 to about 8.5 during the formation of sucralose crystals.

IT **56038-13-2P**, Sucralose
RL: IMF (Industrial manufacture); **PUR (Purification or recovery)** ; PREP (Preparation)
(improved sucralose compn. and crystn. process for its prepn.)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L27 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:	1996:229103 HCAPLUS
DOCUMENT NUMBER:	124:343978
TITLE:	Production of sucralose without intermediate isolation of crystalline sucralose-6-ester
INVENTOR(S):	Navia, Juan L.; Walkup, Robert E.; Vernon, Nicholas M.; Neiditch, David S.
PATENT ASSIGNEE(S):	McNeil-PPC, Inc., USA
SOURCE:	U.S., 7 pp., Cont.-in-part of U.S. Ser. No. 323,954, abandoned. CODEN: USXXAM
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5498709	A	19960312	US 1995-448710	19950524
AU 9534201	A1	19960502	AU 1995-34201	19951011
AU 707557	B2	19990715		
IL 115562	A1	20001121	IL 1995-115562	19951011
CA 2160641	AA	19960418	CA 1995-2160641	19951016
FI 9504908	A	19960418	FI 1995-4908	19951016

NO 9504111	A	19960418	NO 1995-4111	19951016
EP 708110	A2	19960424	EP 1995-307329	19951016
EP 708110	A3	19960807		
EP 708110	B1	20010314		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08208679	A2	19960813	JP 1995-291620	19951016
ZA 9508724	A	19970416	ZA 1995-8724	19951016
BR 9504423	A	19970527	BR 1995-4423	19951016
RU 2155769	C2	20000910	RU 1995-118102	19951016
AT 199723	E	20010315	AT 1995-307329	19951016
ES 2157304	T3	20010816	ES 1995-307329	19951016
PRIORITY APPLN. INFO.:			US 1994-323954 B2	19941017
			US 1995-448710 A	19950524

OTHER SOURCE(S): CASREACT 124:343978

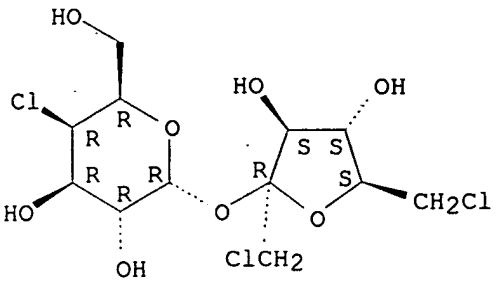
AB A process is claimed for producing sucralose from a feed mixt. of (a) 6-O-acyl-4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose, (b) salt including alkali metal or alk. earth metal chloride, (c) water, and (d) other chlorinated sucrose byproducts, in a reaction medium comprising a tertiary amide, wherein said process comprises: (i) deacylating the 6-O-acyl-4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose by raising the pH of the aq. soln. of (a), (b), (c) and (d) to about 11 (.+-.1) at a temp. and for a period of time sufficient to effect said deacylation, to produce an aq. soln. comprising sucralose, salt including alkali metal or alk. earth metal chloride, and other chlorinated sucrose byproducts, in a reaction medium comprising a tertiary amide; (ii) removing said tertiary amide; and (iii) recovering sucralose from the product of step (ii). A soln. of crude sucrose-6-acetate in DMF (1.447 Kg) contg. 416.94 g (1.084 mol) sucrose-6-acetate was dild. with 2.51 kg fresh DMF, cooled to -2.degree., and stirred vigorously while phosgene (1.125 Kg, 99%, 11.26 mol) was added at a rate of 5.4 to 6.7 g/min. The reaction mixt. was allowed to stir at ambient temp. for 30 min, then heated to 115.degree. over a 2-3 h period, then held at 115.degree. .+-. 1.degree. for 1.75 h, then cooled to 35.degree. over 30 min; the final mass, 4.34 kg, was carried on to the dual stream caustic quench with NaOH/DMF/water, affording approx. 9 kg of quenched mixt. contg. 2 wt. % 4,1',6'-trichloro-4,1',6'-trideoxygalactosucrose-6-acetate (TGS-6-Ac). DMF and tarry, polymeric impurities were removed by steam stripping; for every 9 kg batch of feed, approx. 13 kg of steam-stripped bottoms were produced with a TGS-6-Ac concn. of about 1.5%-wt.; quenched feed contg. 1.8% TGS-6-Ac, 8.5% salts, 54.6% water, and 30.4% DMF, was stripped to produce bottoms contg. 1.6% TGS-6-Ac, 9.8% salts, 84.9% water, and 0.1% DMF residual (99.6% removal of DMF). The crude brine soln. of TGS-6-Ac (15.4 kg) was subjected to deacetylation by raising the pH of the soln. to 11.5 with 50% wt./wt. NaOH; after deacetylation, the soln. was neutralized with concd. HCl. Sucralose was isolated by counter-current extn. with Et acetate and crystn. from Et acetate (providing 33.5 g sucralose) or water (20.2 g sucralose).

IT **56038-13-2P**, Sucralose
RL: IMF (Industrial manufacture); **PUR (Purification or recovery)**; SPN (Synthetic preparation); PREP (Preparation)
(prodn. of sucralose without intermediate isolation of cryst. sucralose-6-ester)

RN 56038-13-2 HCAPLUS

CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



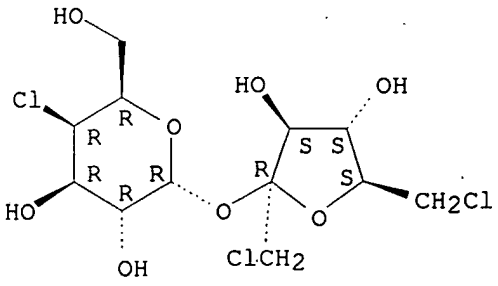
L27 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1979:104227 HCAPLUS
DOCUMENT NUMBER: 90:104227
TITLE: Semipreparative high-pressure liquid chromatography of synthetic carbohydrates
AUTHOR(S): Wingard, Robert E., Jr.; Ng, Steve; Dale, James A.; Wang, Patricia C.
CORPORATE SOURCE: Chem. Synth. Lab., Dynapol, Palo Alto, CA, USA
SOURCE: Journal of Liquid Chromatography (1978), 1(6), 775-82
CODEN: JLCHD8; ISSN: 0148-3919
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A rapid and effective method utilizing a 30 cm .times. 7.8 mm i.d. column packed with Waters Assocs. carbohydrate anal. packing in conjunction with isocratic water-acetonitrile elution and refractive index detection was developed for the purifn. of hundred-mg quantities of water-sol. synthetic carbohydrates. The generality of this method is illustrated by its application to 13 sucrose derivs. and 1 deriv. each of D-fructose and .alpha.,.alpha.-trehalose.

IT **56038-13-2P 69414-04-6P**
RL: **PUR (Purification or recovery)**; PREP (Preparation)
(purifn. of, by semipreparative high-pressure liq. chromatog.)

RN 56038-13-2 HCAPLUS
CN .alpha.-D-Galactopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 69414-04-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, 1,6-dichloro-1,6-dideoxy-.beta.-D-fructofuranosyl 4-chloro-4-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).